538,411

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
1 July 2004 (01.07.2004)

PCT

(10) International Publication Number
WO 2004/055515 A1

(51) International Patent Classification[7]: G01N 33/49, 33/487, 27/76

(21) International Application Number: PCT/EP2002/014251

(22) International Filing Date: 13 December 2002 (13.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(71) Applicant and
(72) Inventor: MARINELLI, Mauro [IT/IT]; Via Razeto 2/1, I-16132 Genova (IT).

(74) Agent: KARAGHIOSOFF, Giorgio, A.; Studio Karaghiosoff & Frizzi S.a.s., Via Pecorile, 25/C, I-17015 Celle Ligure (IT).

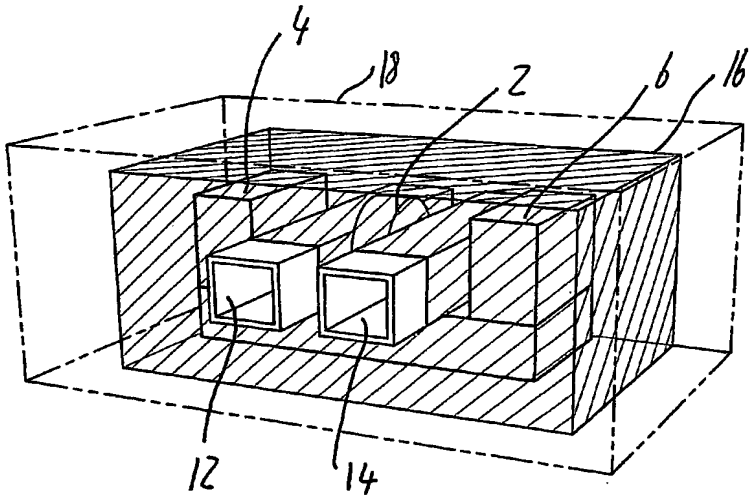
(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SUSCEPTOMETER FOR NON-INVASIVE IRON LEVEL MEASUREMENT IN A BODY



(57) Abstract: A susceptometer for non-invasive determination of iron concentration in a body, by detecting the magnetic flux variation produced by the body. The susceptometer comprises a heat insulating case (16), containing a support structure that defines a screening region (8, 10). The structure supports an alternating magnetic field source, which is able to generate a magnetic field in the screening region, and at least two magnetic field sensors (4, 6), disposed in front of the field source (2). Means (12, 14) for introducing the body to be measured in the screening region (8, 10), temperature-control means, for stabilizing temperature inside the case, so as to limit relative variation to a predetermined maximum value, and means for processing electric signals indicative of the variation in the magnetic field linked to the sensor, which variation is caused by the screened body, in the screening region, are further provided.

WO 2004/055515 A1